

**REMARKS**

It is respectfully requested that the Examiner enter these amendments prior to examining the application on its merits.

Claims 1, 3, 4, 12, and 24 are cancelled. Claims 2, 21-23, and 25 are amended and claim 38 was added. Claim 38 was originally presented as claim 12, but now depends on claim 37 instead of claim 2.

*Claim Rejections under 35 U.S.C. § 112*

Claims 1 and 12 were cancelled and claim 12 was renumbered as claim 38 to depend on claim 37 having an antecedent basis for "couplers". The Examiner's objections under 35 U.S.C. § 112 are therefore now moot and Applicants respectfully request their withdrawal.

*Claim Rejections under 35 U.S.C. § 102*

The Examiner stated, "the Ikeda reference, U.S. Patent 5,104,413 ("Ikeda"), teaches a hair dyeing composition comprising cysteine derivatives (N-acetylcysteine), an aromatic alcohol and/or ethoxylate alcohol as a medium suitable for

dyeing and a dye compound". Therefore the Examiner stated that Ikeda taught all the limitations of the claim. Applicants respectfully traverse.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). With regard to claim 21 as currently amended, Ikeda does not teach hair dyeing compositions containing at least one oxidation dye precursor. The only hair dyes specifically disclosed in Ikeda are direct dyes (see col. 3, lines 5-16, claim 1), which are a group of dyes not including oxidation dye precursors. Neither does Ikeda teach hair dyeing compositions containing at least one laccase. Ikeda does not contain each and every element of amended claim 21 and therefore cannot be anticipated under 35 U.S.C. § 102(b). Applicants respectfully request withdrawal of the rejection.

*Claim Rejections under 35 U.S.C. § 103*

Claims 1-4, 10-15, 19-27, 30-35 and 37 were rejected as being unpatentable over Kunz et al. U.S. Patent No. 6,106,579

("Kunz") in view of Ikeda. The rejection is respectfully traversed.

The Kunz reference actually teaches a method for removing oxidative and non-oxidative dye compositions from hair using a process that Kunz claims is milder and safer than repeated bleaching. The Kunz reference discloses and claims a multi-part kit for dyeing and subsequent decolorization of a user's hair. The reference teaches an invention that is apparently suited for people who wish to change their hair color repeatedly without sustaining serious hair damage. Kunz supports these claims of mild and effective decolorization by showing examples in the specification that teach two-step process: a) temporarily dyeing fibers, especially human keratin fibers, using an oxidizing or non-oxidizing dyeing process and then b) subsequently removing the dye color from the fibers using a reducing decolorizing process, after a comparatively short time interval (col. 1, lines 54-57). The purpose of the examples is to show the effectiveness of the decolorizing methods being claimed. These two processes are distinct from each other and are separated from each other by a long period of time when the user's hair is colored.

The Kunz patent discloses a multi-part kit for (a) dyeing and later (b) decolorizing fibers includes a first part (I) with an oxidative or non-oxidative composition and a second part (II) with a reductive composition containing a reductone and /or thiol and/or a sulfite and at least one  $\alpha$ -oxocarboxylic acid (col. 2, lines 20-27).

Part (I) may contain laccase as an oxidizing agent in the oxidative dyeing process (col. 8, line 38) and part (II) may contain N-acetylcysteine (Col. 10, line 39) in the reductive decolorizing process. As discussed above, these two processes are distinct from each other and are separated from each other by a time interval (col. 1, lines 22-57). One of ordinary skill in the art would clearly understand that the oxidizing composition of Kunz containing a laccase (part I) will never be mixed or otherwise in physical contact with the reductive composition containing N-acetylcysteine (part II), nor would these two compositions ever be applied together onto keratin fibers.

Kunz therefore teaches away from using a laccase and N-acetylcysteine together either by applying them one after another onto the keratin fibers as in the process of claim 2 or by using them in a single composition (such as the composition

stored protected from air according to claim 21 or the ready-to-use composition of claim 22). In contrast, the present invention teaches the combination of an oxidative dye precursor, a laccase and a reducing agent such as N-acetylcysteine all in the same composition or in two separate compositions to be used simultaneously to achieve colorization of hair with less dye. One of ordinary skill in the art would have had no motivation to modify the teaching of Kunz by introducing the reducing decolorizing agent N-acetylcysteine in the oxidizing dyeing composition containing a laccase to achieve the objectives of the present invention.

The secondary reference, Ikeda, teaches a hair dyeing composition comprising: a) cysteine derivatives such as N-acetylcysteine; b) an aromatic alcohol and/or a diethyleneglycol monoether; and c) direct dyes. The introductory portion of Ikeda clearly explains that the use of oxidizing agents and of basic compounds causes damage to the hair fibers. Ikeda neither teaches or suggests the use of N-acetylcysteine in hair dyeing compositions containing oxidation dye precursors, but only the use of N-acetylcysteine in hair dyeing compositions containing direct dyes.

It is the Examiner's position that it would be obvious for one of skill in the art to "modify the Kunz reference by incorporating N-acetylcysteine." The Examiner does not clearly state in which of the two distinct compositions, either part I or part II of Kunz, it would have been obvious to incorporate N-acetylcysteine. The "hair-treating composition (col. 10, line 39)" of Kunz cited by the Examiner (which is in fact the reductive decolorizing composition of part II) already contains N-acetylcysteine but - as explained above - the presence of N-acetylcysteine in the reductive decolorizing composition does not lead to the claimed invention.

The Examiner argues that it would have been obvious to incorporate N-acetylcysteine in the composition containing oxidation dye precursors (assuming into part I of Kunz). This argument is respectfully traversed. Applicants respond that there is no motivation for the proposed combination in either the Kunz or Ikeda reference. Moreover, Applicants argue that the art teaches away from such combinations. The Examiner has presented no line of reasoning as to why one of skill in the art reviewing the art would have found it obvious to selectively pick and choose the various elements and/or concepts of Kunz and Ikeda to arrive at the present invention. In the present office action, the Examiner has only cited references that show

elements of the claimed invention in one or more combinations without addressing the suggestion or motivation in the art to do so. See Ex parte Clapp, 227 U.S.P.Q. 972 (B.P.A.I. 1985). Moreover, the mere fact that a device or process utilizes a known scientific principle does not alone make that device or process obvious. See, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1053, 5 USPQ2d 1434, 1440 (Fed. Cir. 1988). See also Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ 481, 489 (Fed. Cir. 1984)

When the references cited by the examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1986 (Fed. Cir. 1988). Therefore the Examiner cannot maintain a *prima facie* obviousness rejection under 35 U.S.C. § 103 and applicants respectfully request withdrawal of the rejection.

Claims 5-9 and 28-29 were rejected under 35 U.S.C. § 103(a) as obvious over Kunz in view of Ikeda and further, in view of Aaslyng (WO 97/19999). The Applicant respectfully traverses.

Applicant again argues that the Examiner has not made a proper *prima facie* case of obviousness, because the Examiner has failed to identify any teaching or motivation in the art to

combine the teachings of Ikeda and Kunz. The Ikeda reference only teaches that use of cysteine derivatives with direct hair dye makes the dye less irritating and longer lasting. The Kunz reference actually teaches two different compositions: I) that oxidative dye precursors can be oxidized using laccases; and II) reductive colorization can be achieved with cysteine derivatives. At no time does Kunz or Ikeda teach or suggest that these two different compositions (I and II plus Ikeda) should be mixed in physical contact together as a new process or composition, or that such a new process or composition would provide for superior hair colorization with less dye, nor is there any suggestion in the art presented by the Examiner to do so. In contrast, the present invention teaches that if one creates a composition or process comprising an oxidative dye precursor with a reducing agent such as N-acetylcysteine as well as a laccase in a particular quantity, what results is good oxidative dye coloration using less dye and having less of a detrimental effect on the hair.

The Examiner's lack of showing any teaching or suggestion in the art of the combination of the Kunz and Ikeda references to arrive at the process and composition of present invention is not cured by the addition of the Aaslyng (WO 97/19999) reference. Aaslyng teaches that oxidative dyes can be cured



using oxidative enzymes such as laccases and describes various species. The mere fact that others knew of this use of laccases does not make the present claimed invention obvious.

The Examiner states (Page 6, ¶2) that one of skill in the art would have been motivated to modify Kunz by importing laccases identified by Aaslyng because "...the primary reference (Kunz) suggests the use of laccases as oxidizing agents...". However the Examiner fails to point out that Kunz describes two separate processes: I) an oxidative dyeing process; and II) and reductive decolorization process. While there may have been motivation in the art to use the teachings of Aaslyng as applied to part I of Kunz, to improve oxidation dyes, the Examiner has shown no subsequent suggestion or teaching in the art to combine N-acetylcysteine or its derivatives into a new composition or process.

When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references. See In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987). See also Richdel, Inc. v. Sunspool Corp., 714 F.2d 1573, 1579-80, 219 USPQ 8, 12 (Fed. Cir. 1983) ("Most, if not all, inventions are combinations and mostly of old elements."). "An Examiner may

often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be an illogical and inappropriate process by which to determine patentability." Sensonics, Inc. v. Aerosonic Corp., 81 F.3d 1566, 1570, 38 USPQ2d 1551, 1554 (Fed. Cir. 1996). See also, In re Rouffet, 149 F.3d 1350, 1357-58, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998) (...To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness).

The Applicant respectfully puts forth that the Examiner appears to be using hindsight and Applicant's own disclosure to make the *prima facie* case. The Examiner has failed to show how one of skill in the art would have been motivated to combine the teachings of Kunz in view of Ikeda and Aaslyng, and therefore the Applicant respectfully requests that the rejection be withdrawn.

Claims 16-18 and 36 were rejected under 35 U.S.C. § 103(a) as obvious over Kunz in view of Ikeda and Cotteret et al. (U.S. 5,735,908). Applicant respectfully traverses this rejection.

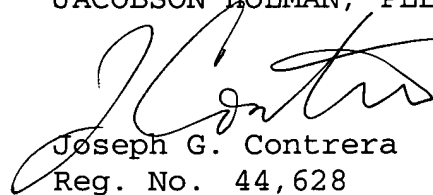
Applicant responds in a similar manner as to the previous rejection of claims 5-9 and 28-29, and argues that the Examiner has not made a proper *prima facie* case of obviousness, because the Examiner has failed to identify any teaching or motivation in the art to combine the teachings of Ikeda and Kunz. As stated previously, the Ikeda reference only teaches that use of cysteine derivatives with direct hair dye makes the dye less irritating and longer lasting. The Kunz reference actually teaches two different compositions: I) that oxidative dye precursors can be oxidized using laccases; and II) reductive colorization can be achieved with cysteine derivatives. At no time does Kunz or Ikeda teach or suggest that these two different compositions (I and II plus Ikeda) should be mixed in physical contact together as a new process or composition, or that such a new process or composition would provide for superior hair colorization with less dye, nor is there any suggestion in the art presented by the Examiner to do so.

Furthermore, the lack of any teaching or suggestion of the combination of the Kunz and Ikeda references to arrive at the process and composition of claims 16-18 and 36 is not cured by the addition of Cotteret et al. (U.S. 5,735,908). Cotteret teaches that certain oxidative dye precursors can have their selectivity enhanced using cationic or amphoteric substantive polymers and describes various species. However the Examiner fails to point out that Kunz describes two separate processes: I) an oxidative dyeing process; and II) and reductive decolorization process. As in the previous rejection, while there may have been motivation in the art to use the teachings of Cotteret et al. as applied to part I of Kunz, to improve oxidation dyes, the Examiner has not shown any subsequent suggestion or teaching in the art to combine N-acetylcysteine or its derivatives into a new composition or process. The Examiner may not combine references in the art "unless the prior art suggested the desirability of [such a] modification" or replacement. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). As such, Applicant argues that the Examiner has failed to show how one of skill in the art would have been motivated to combine the teachings of Kunz in view of Ikeda and Cotteret et al. and therefore the Applicant respectfully requests that the rejection be withdrawn.

If there are any questions, the Examiner is invited to call the attorney at 202-638-6666. Entry of the amendment and reconsideration is respectfully requested.

Respectfully submitted,

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